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ABSTRACT

This paper reports on a two-year exploratory study to determine the viability of voice-based threaded discussions forums as a means of stimulating discussion and understanding of weekly readings as part of a large undergraduate communications course. From March to June 2001, 600 students participating in a large introduction to communication course at the University of South Australia were required to post a summary of their readings each week to a threaded online voice/text forum. The course was delivered face-to-face with considerable online support. Wimba Voice Board software was used to facilitate the forums. It was found that most students preferred to make text, rather than voice postings. The factors contributing to this preference are examined and discussed and recommendations for further research are made. (Contains 12 references.) (Author/AEF)

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Voice vs Text-based Discussion Forums: an Implementation of Wimba Voice Boards

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Abstract: This paper reports on a 2 year exploratory study to determine the viability of voice-based threaded discussion forums as a means of stimulating discussion and understanding of weekly readings as part of a large undergraduate communications course. It was found that most students preferred to make text rather than voice postings. The factors contributing to this preference are examined and discussed and recommendations for further research are made.

Introduction

It is often difficult in an asynchronous online environment to express ones thoughts using text alone (Kouki and Wright 1999). Ong (Ong 1982) in his study of orality vs literacy argues that oral communication requires a different and more extensive use of thinking which is more immediate compared to text. Often text is inefficient in expressing ideas quickly. Asynchronous online communication has been predominantly text-based until recently. This was out of bandwidth limitations rather than any pedagogical or communicative imperatives (Palloff and Pratt 1999; Pettit 1998)

Now that we are in a position to use voice-based asynchronous online tools in educational contexts it is important to begin trials and evaluations to determine how to make the best use of these tools. This paper presents the results of an exploratory trial of voice-based discussion forums over a 2 year period (2001–2002). The objective was to determine whether voice-based discussion forums were viable as a means of stimulating discussion and understanding of weekly readings as part of a large undergraduate communications course.

The study reported in this paper is influenced by Donald Shon's 'Reflective Practitioner' approach (Schön 1991) as part of an overall Action Research strategy (Kemmis and McTaggart 1988) . "How you see the world is largely a function of where you view it from, what you look at, what lens you use to help you see, what tools you use to clarify your image, what you reflect on and how you report your world to others." (Anderson and Arsenault 1998: 3)

Method

In March to June 2001, 600 Students participating in a large introduction to communication course at the University of South Australia were required to post a summary of their readings each week to a threaded

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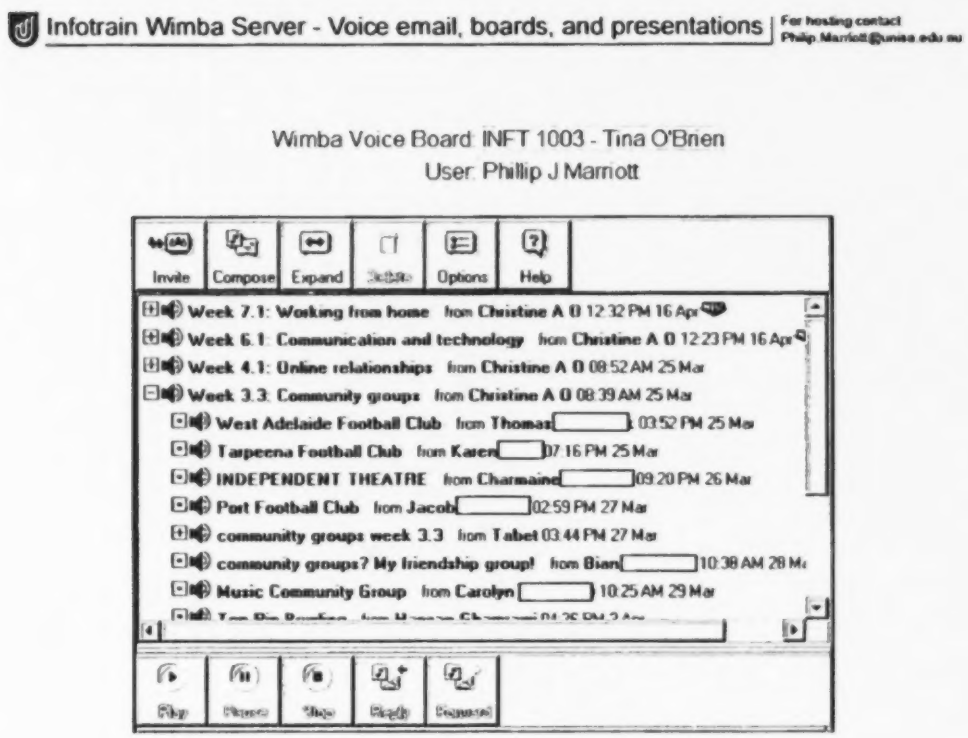
online voice/text forum. Forums varied in size from 20 to 80 participants. The intention was to provide an incentive for students to complete required readings before each weekly tutorial and to stimulate discussion.

The course is delivered face-to-face with considerable online support. The course is constructed according to principles of active learning (Brooks 1997, Forsyth 1998, Palloff and Pratt 1999).

Wimba Voice Board software (www.wimba.com) (fig 1) was used to facilitate the forums. This software has both a client and server component. The server component was installed on a server at the university. Participants then connected to the server through a web browser and automatically downloaded the client software which ran embedded in their web browser. The client installed seamlessly into most participants' web browsers.

Fig 1: Wimba Voice Board screen capture


Infotrain Wimba Server - Voice email, boards, and presentations
For hosting contact
Wimba Voice Board: INFT 1003 - Tina O'Brien
User: Phillip J Marriott
Invite
Compose
Expand
Options
Help
Week 7.1: Working from home from Christine A O 12:32 PM 16 Apr
Week 6.1: Communication and technology from Christine A O 12:23 PM 16 Apr
Week 4.1: Online relationships from Christine A O 08:52 AM 25 Mar
Week 3.3: Community groups from Christine A O 08:39 AM 25 Mar
West Adelaide Football Club from Thomas 03:52 PM 25 Mar
Tarpeena Football Club from Karen 07:16 PM 25 Mar
INDEPENDENT THEATRE from Charmaine 09:20 PM 26 Mar
Port Football Club from Jacob 02:59 PM 27 Mar
community groups week 3.3 from Tabet 03:44 PM 27 Mar
community groups? My friendship group! from Bian 10:38 AM 28 M
Music Community Group from Carolyn 10:25 AM 29 Mar

This experiment was conducted in a context where participants are computer literate (to at least a basic level), predominantly young, and motivated to participate. Participants could choose to make contributions to the forums in either text or voice or a combination of both. Text was input through the keyboard. Voice was typically input using a microphone/headphone headset through the computer's sound card. Participants could make contributions from any location on the Internet. For most participants the choice was between using computers at university or a computer at home. All participants were required to purchase headsets prior to commencing the course.

Information on the usage of the forums was gathered by examination of server logs and a questionnaire survey of participants at the completion of the trial. The survey administered online and was voluntary and

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anonymous and all members of the cohort were invited to participate. A response rate of 154/582 was achieved.

We noticed that, over time, as participants used the forums, the frequency of text postings increased with a proportional decrease in the frequency of voice postings. We wanted to explain this difference and this provided the motivation for this study.

In 2002, the experiment was repeated with the next cohort of 587 students (response rate of 124/587). These students used voice forums in exactly the same way as the previous year's students with the exception that they were not shown or informed about the ability to use text or a combination of text and voice. Consequently all postings to the voice forums were voice-only in 2002. It was our belief (Marriott 2001) that given sufficient experience with voice posting, students would be more inclined to use this method of posting.

Results

Server logs

In 2001, according to the server logs, participants made 3943 postings with a voice component compared to 2392 postings with a text component. Postings with a voice component were clearly more popular.

Participants consulted text postings 25463 times and voice 11313 times. So while the voice postings were more numerous it was far more common for participants to read the text postings of other participants.

In 2002, participants made 5839 voice postings compared with 132 text postings. It is likely that these text postings can be attributed to headings posted by tutors to organize their groups. It would be reasonable to say that no students posted a text posting in 2002. Clearly the policy of silence on the ability to post text had a significant effect.

Survey

At the completion of the trial period all participants were surveyed using a questionnaire containing 5 Likert scale questions and 2 free response questions.

Fig 2 contains the 5 Likert scale questions that were given to both the 2001 and 2002 cohorts. The charts are arranged for easy comparison of groups. It should be noted that no attempt has been made to test for statistical differences between groups. Samples were not randomly selected and no information is available about differences between the 2001 and 2002 populations. Despite these limitations the charts provide an interesting basis for discussion, in keeping with the interpretive nature of the study.

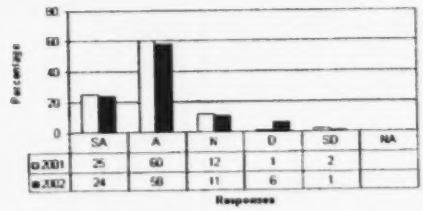
Participants were also asked to explain why they preferred one method of posting over the other in the form of 2 free response questions. Table 2 is selection of representative responses to the 2 free response questions given to both the 2001 and 2002 cohorts. In this case only 2002 responses are given. The intention is to give an indication of the range of responses received. Analysis of free responses is given in the discussion section of this paper.

Fig 2: Likert Scale Questions: Voice Forum Survey

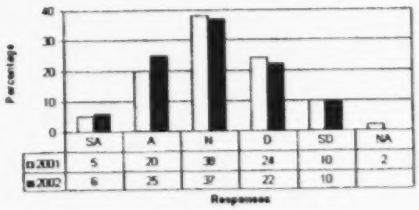
SA = Strongly Agree, A = Agree, N = No Strong Opinion, D = Disagree, SD = Strongly Disagree, NA = Not Applicable

Sample size (n) 2001 = 154, sample size (n) 2002 = 124; population 2001 = 582, population 2002 = 587

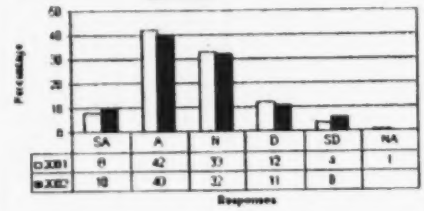
Question 1: I found the Wimba Voice Forums easy to use



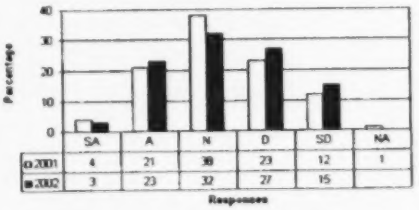
Question 2: I like posting to the Voice Forums each week



Question 3: I think the Voice Forums are a useful part of the course



Question 4: I would like to use Voice Forums more in my studies



Question 5: I would prefer to post text rather than voice messages

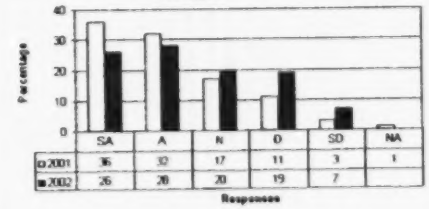


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Table 2: Sample of survey free responses

Date	The Wimba voice forums allow postings to be made as text or voice or a combination of both. In this course students made mainly voice postings. Which would you prefer to post, text or voice or a combination of both?	Why did you prefer one type of posting (voice / text)? Give reasons.
2/05/2002 10:22:53 PM	Mainly text, but voice is OK if REALLY necessary.	Probably because I become very self-conscious when recording my own voice. It is much easier for me to type it, erase it, re-type it ad infinitum, until I get it just right. As well as that, to have an effective voice posting you need the Uni's LAN connection. To do it from home is VERY slow and inefficient.
3/05/2002 7:35:04 AM	text	to me, it is more anonymous, and is easier to edit the information so that what you actually post is full of relevent information rather than um's and ah's.
3/05/2002 8:28:24 AM	Text only	You can think out your postings more with text entry. Even though the technology for voice messages is here now I believe that it is not fully evolved, which makes for on some occations hard to hear messages.
3/05/2002 8:40:52 AM	text.	I prefer text by far because I type much faster than I would speak on the Wimba voice forum. Also, when we were required to listen to other student's postings, their voices were sometimes unclear or hard to understand. Text is much easier in this respect!
3/05/2002 9:00:08 AM	Text	Easier to do, doesn't take up much of your time.
3/05/2002 9:43:27 AM	voice	it is easyer to use and faster.
3/05/2002 10:36:23 AM	either,or a combination	I was a bit shy to post voice messages when there were lots of strangers in the room, also voice messages sometimes needed to be redone because I didn't do them properly or there was lots of background noise, text eliminates these elements, but text is less fun too

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Discussion

In the analysis of the 2001 results (Marriott 2001) it was clear that by the end of the trial most students preferred to post text messages. And while nearly all students initially posted voice messages, most drifted back to text. It was thought that many of the students had not given voice a fair go. Perhaps, we mused, if only they had persevered for longer with voice, they may have developed a greater preference for it. In 2002 it was decided to put this assertion to the test. Student in 2002 were not told of the Wimba software's ability to post text messages. Consequently all student postings in 2002 were voice-based.

Fig 2 shows the remarkable similarity between the 2001 and 2002 groups on all questions. In particular questions: 1 'usability', 2 'like making postings', 3 'useful part of studies' have almost identical distributions. Question 5 which deals with the preference of text over voice is slightly skewed in that the 2001 group seem to have a slightly stronger preference for text. Question 4 which deals with the preference for greater use of voice forums shows a slight tendency for the 2002 to want less future involvement with voice forums.

Our first concern was whether participants found the software difficult to use. We wanted to know whether the design of the software was a significant influence on the decision to post in text or voice. Question 1 (fig 2) shows that most participants found the software easy to use with no participant claiming the software was difficult to use.

We found the response to question 5 quite surprising, after all these students had never tried a text posting to the Wimba Voice Forums, yet the majority wanted to post in text. It seems that regular experience with voice-posting does not change the preference for text-posting in this context.

Responses to the free response questions (table 1), which probe deeper into the reasons why participants prefer voice, text, or a combination of both, are very similar for 2001 and 2002.

For a great many of the participants it would seem that voice-posting presents a challenge in that it:

- is embarrassing to talk into a computer in public or private
- is difficult to make long responses without errors
- is difficult to speak fluently
- is difficult to correct errors
- requires additional equipment (headset)
- presents technical problems on some computer systems

Those participants who preferred voice-posting see the benefits of voice as:

- a more natural and therefore easier way to present ideas and respond to the ideas of others.
- it is a richer means of communication that includes verbal cues and an emotional context.

Conclusion and Implications

The similarity between the 2001 study (Marriott 2001) and the subsequent 2002 study tends to provide validation for the initial findings. A small number of participants preferred to post voice over text. What is not clear are the factors that influence this decision. Familiarity with voice, alone, does not a likely factor. What is it that makes these participants different? This surely provides the impetus for a more focussed study that looks closely at people who prefer to post voice and attempts to uncover the contributing factors.

It may be that the context for the postings inherently is better suited to text and the participants are only responding to this environmental pressure. Perhaps certain types of asynchronous discussion are best done with text and others with voice.

What is not considered in this study is the effectiveness in terms of learning, of conducting a voice versus text asynchronous discussion. Does, for example, text or voice-posting provide deeper learning (Ramsden 1992)? Is this dependent on the context (Brown 1989)?

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